

**DOPED LiF MONOCHROMATOR FOR X-RAY ANALYSIS**ABSTRACT

The invention relates to a crystalline lithium fluoride doped with at least 0.018 mol per kg of a divalent positive ion M present in the fluoride state, in particular of the single-crystal type. The ion may be  $Mg^{2+}$ ,  $Zn^{2+}$  or  $Co^{2+}$ . This fluoride has a high reflectivity and intense radiation that can emanate therefrom may be effectively received by a fast light scintillator, especially of the rare-earth halide type. It is particularly useful as a monochromator for X-ray fluorescence radiation for the purpose of elemental analysis.